

PARK CITY MUNICIPAL CORPORATION

STORM WATER MANAGEMENT PLAN

2007 ANNUAL REPORT

September 24, 2007

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SECTION 1.0 STORM WATER MANAGEMENT PLAN OVERVIEW

In accordance with Park City's Storm Water Management Plan, the purpose of this report is to submit to the Utah Department of Environmental Quality (UDEQ) the 2007 Annual Report. The intent of this document is to report the City's storm water quality efforts and achievements for the year 2007 (**Addendum 1.0**).

Similar to 2006, the year of 2007 has been very active in regards to Park City Municipal Corporation's (PCMC) continued effort to fulfill the obligations within the Storm Water Management Plan with the intent of improving water quality within Silver and East Canyon Creek watershed. Many of the department environmental goals that were established last year were exceeded as well as the continued expansion of conservation practices related to controlling non-point source pollution (NPS) within the watershed. Furthermore, PCMC has also diligently enforced the City's environmental ordinances, which also play an important role for improving water quality within both watersheds.

For the year 2008, additional storm water quality improvements will be pursued as well as maintaining the current program goals and achievements. With that stated, the following content summarizes the 2007 Storm Water Management Plan activities for the year.

SECTION 2.0 EDUCATION AND OUTREACH

This year PCMC with assistance from Tom Rushing (UDEQ), contracted with Paradigm Engineering to do a training presentation on Storm Water Controls. The training was conducted in the Council Chambers and was conducted using a ppt presentation (**Addendum 2.0**) and a manual was provided to the attendees. Local contractors were required to participate in the training session and 20 contractors attended the 8 hour session (**Addendum 3.0**).

The City did not co-train with Summit County this year to educate citizens and contractors on Best Management Practices related to improving storm water quality. Instead a workshop was conducted at the Home Owners Association meeting conducted on May 26th 2007 and approximately 150 contractors attended the meeting. During the meeting the Park City Environmental Information Handbook and storm water brochures were distributed as an educational resource. Also discussed were the storm water BMP requirements within the Building Permit Mitigation Plans that are required to be submitted to the Building Department. The Mitigation Plan defines the type of erosion control BMPs, specifies soil management procedures, and requires the contractor to control mud in egress and ingress areas. This year the mitigation plan was revised to include concrete truck wash out procedures for extremely large projects. These requirements are enforced by Park City's Code Enforcement Officer and Building Inspectors. Furthermore, they are required to sign an Attachment A, which states that the contractor is aware of PCMC environmental ordinances and agrees to comply. This attachment also includes diagrams of acceptable BMP practices that should be installed on the construction site.

Subsection 2.1 Watershed Educational Signs

During 2007 there were no more educational signs posted in either Silver Creek or East Canyon Creek Watershed. However the signs that have been posted are a positive influence to the community and it does appear people are paying more attention to disposing of dog waste appropriately and practicing acceptable storm water BMP's. Picture #1 depicts one sign that is

posted along McLeod Creek stream corridor and along the Rail Trail situated near Silver Creek in high exposure traffic areas.



Picture 1: McLeod Creek Watershed Sign.

No other signs are scheduled to be posted, unless an opportunistic area reveals itself for being used for education. The East Canyon Creek stakeholders group continues to procure GPS coordinates for the storm water in-flow grates located within the Prospector Park development. This work is being coordinated with Brendan Waterman (East Canyon Creek Watershed Coordinator) and the Park City High School Environmental Class who have the task of recording the GPS data points. This year a measurable goal was to place markers on storm water flow input grates that state “NO DUMPING DRAINS TO WATERSHED”. During this year 100 of these units were installed in the City and it is anticipated that the remaining markers will be placed by October 31st 2007. Also, the East Canyon Creek Watershed group hung on doorknobs additional watershed educational information.

Subsection 2.2 Park City Environmental Information Handbook

This year the Environmental Information Handbook (**Addendum 4.0**) was revised and sent out to all owners within the Soils Ordinance Area. In addition, the book is located in the building and planning department. This handbook continues to be very instrumental in informing residents of the environmental ordinances and daily household practices that are applicable for minimizing storm water impacts. The City printed 1,500 handbooks in 2007 and the printing was paid for with the Environmental Management System (EMS) budget (\$11,357.34). The handbook was distributed to the following entities within the city limits this year:

- Soils Ordinance Stakeholders
- Park City Citizens
- Real Estate Agents
- Contractors
- New Residents
- Watershed Stakeholder

Subsection 2.3 Building Department Education

PCMC Building Department continues to educate contractors who have been issued building permits for construction within the city limits. As previously stated, when a building permit is issued, the contractor is required to complete a mitigation plan template and sign an “Attachment

A” certification (**Addendum 5.0**) that commits them to comply with the environmental ordinances. The Building Department permit window also provides the following information:

- **Park City Environmental Information Handbook**
- **Storm Water Brochures**
- **Mitigation Plans**
- UDEQ Information

PCMC Building Department Inspectors also continue to enforce and educate contractors on the storm water requirements within the signed mitigation plan. Inspectors typically issue a “**Stop Work**” order if storm water BMP’s are not installed on the job site. Typically, two warning notices are issued to the contractor with the third notice being a “Stop Work” order. After that order is issued the contractor has 12-hours to remedy the situation before the permit is withdrawn.

Regarding large developments such as the Empire Pass Development, Silver Star Condominiums and The Montage Development the City mandates that no mud or sediment be allowed on the road. In order to accomplish this tasks the Empire Pass Development and Montage Development have purchased street sweepers in addition to having a full time staff remove the mud and debris from gutters and city streets. In addition, the Park City High School renovation required a separate Work Plan which specified Storm Water Management controls.

Subsection 2.4 Water Conservation Outreach and Education

The City Xeriscape Garden located at 1327 Park Avenue is maintained by the Parks Department and is used by the public to acquire ideas on drought tolerant plants that can thrive within the Park City area. In addition to the garden, a comprehensive pamphlet is available at the Planning Department as a resource. PCMC believes that the promotion of the xeriscape concept directly benefits storm water quality in the following instances:

- Less land disturbance will result in less erosion and sediment migrating off-site.
- Less application of herbicides, pesticides, and fertilizer results in a reduction of pollutant concentrations migrating off-site with storm water flows.
- Reduction in overall run-off volume.
- Lower water usage from the culinary system.

It should also be noted, that PCMC continues to implement the Conservation and Drought Management Plan, which defines the BMP’s for conserving water. This plan includes enforcing irrigation ordinances, water management priorities, and public service announcements that are broadcast by the local radio and TV stations. Conveyances of water conservation practices are also accomplished on posters and bus advertisements.

Also, the city sent out over 1,500 noxious weed notices (**Addendum 6.0**) and reference books to inform property owners that it was their responsibility to control invasive weed species. As a result, PCMC has noticed residents eradicating noxious weed species upon discovery. The Noxious Weed Field Guide books were provided by the NRCS and paid for by the account managed by the Open Space manager. This was done May 15th 2007. In addition, the Parks Department conducted a Noxious Weed Training seminar on May 31st 2007 for local residents and contractors.

Subsection 2.5 Residential Storm Water Brochure

The residential storm water **brochure** is still available in the following areas:

- Planning Department
- Building Department
- Library

In addition, on June 12th 2007, PCMC submitted to the Park Record a residential storm water brochure (brochure **front** and **back**) for the weekend circulation. The Park Record has 9500 subscribers and the storm water brochure flyer was placed in the Sunday paper as an insert. It should be noted that several meetings were conducted with Home Owners Association groups and during these meetings the storm water brochures and environmental handbook were distributed.

Subsection 2.6 Others Trained

On May 8th 2007 the Weber Basin Job Corps arrived with approximately 42 volunteers that planted native seed mix (150 lbs.) and trees (Red Osier Dog Wood and Yellow Willow) (400) along the McLeod Creek stream corridor. During this time the volunteers also learn about PCMC Storm Water Management Plan and efforts that can be employed to minimize storm water impacts. Volunteers were given an overview of East Canyon Creek Watershed and the associated pollutant impacts that have resulted in the watershed being impaired and listed on the 303 (d) list. PCMC is very pleased to have the Weber Basin Job Corps involvement in assisting with the NRCS work plan. They have worked very hard for the past three years to improve the East Canyon Creek watershed.



Picture 2: Weber Basin Job Corp Revetment Installation Crew May 07.

PCMC also contributed \$2,500.00 to the Swaner Nature Preserve Water Festival, which was attended by many city citizens on February 6th 2007 (**Addendum 7.0**). The intent of the festival was to educate the public on water quality issues and inform them of residential BMPs. The festival was held at Kimball Junction and PCMC believes it is events like this that increase public awareness in regards to improving water quality within the watershed. The City also contributed to the festival by donating SWMP BMP brochures and Park City Environmental Information Handbook.

SECTION 3.0 ORDINANCE ENFORCEMENT ACTIVITY

The purpose of this section is to document PCMC enforcement activities related to implementing the ordinances contained in the Building Department Code. PCMC currently administers several programs and regulations that either directly or indirectly focuses on storm water runoff from construction, development sites, and biological sensitive areas within the City. The intent of these ordinances is to ensure that controls are in place to minimize water quality impacts and protect human health and the environment.

Subsection 3.1 Construction Mitigation and Storm Water Enforcement

Construction **mitigation plans** are required for all construction projects that require a building permit. The mitigation plans are reviewed and approved during the building permit and plan-check process. As specified in this plan, the contractor must control dust and mud from migrating from the construction site. Furthermore, BMP's must be installed along the perimeter of the job site and storm water inflows (silt screen fencing, socks, straw bales). During compliance inspections, inspectors ensure that gravel is placed on ingress and egress areas to help control sediment loss from the job site. Also, the plan checkers require that submitted plans identify the proposed BMPs and where they will be installed. The following table summarizes the 2007 storm water enforcement activities for the building inspectors, code enforcement, and plan checkers:

Representative	Stop Work Order	Enforcement Inspection	Plan Check
Rich Novasio	26	50	
Dale Nichols	3	38	39
Jeff Schoenbacher	12	85	
John Allen	9	65	
Kurt Simister	41	270	
Debbie Long	1	16	
Michelle Downard	10	56	57
Richard Carlile			69
Richard VonWeller		250	
Roger Evans			87
Doug Thacker		20	

In addition to storm water enforcement inspections, non-compliance was added to the Administrative Code Enforcement Hearing Program. This program was accepted by the City Council who understands that the enforcement of the Park City Municipal Code and applicable codes throughout the City is an important public service. The City Council position was that a comprehensive code enforcement system that uses a combination of judicial and administrative remedies is critical to gain compliance with these regulations. Failure to comply with an administrative code enforcement action requires the City Attorney to file a judicial action to gain compliance. Storm water non-compliance issues are administered and a daily fine of \$25 and a lien can be placed on the property. Since the program inception it has been an instrumental tool in the enforcement of problematic storm water issues.

Subsection 3.2 Soils Ordinance Capping Activity

The Original Soils Ordinance boundary, which mandates a clean-topsoil substrate cap of six inches for lots that exhibit elevated lead levels exceeding 200-ppm lead, had a substantial amount of activity this year. In addition to the clean-topsoil requirement, the ordinance also mandates the establishment of suitable grass cover or xeriscape (i.e. weed barrier fabric covered with bark or rock) to prevent the erosion of topsoil. To further protect the cap, the parking of vehicles on these areas is prohibited in order to minimize sediment displacement and damage to the cap. The ordinance standards improve water quality within the Silver Creek Watershed by providing a barrier between storm water flow and the underlying mine tailings that are impacted with mine tailings. PCMC continues to thrive for 100% cap compliance for properties residing within the Soils Ordinance Boundary. Summarizing the capping activities for 2007, a total of 22 lots were capped this year within the Soils Ordinance Boundary. While this report is being written, many owners are capping their property and as a result the City anticipates this number increasing by the end of the year. The Figure 1 represents 2006 activity and Figure 2 is the current cap compliance for properties residing in the original boundaries (lots depicted in red have been capped):

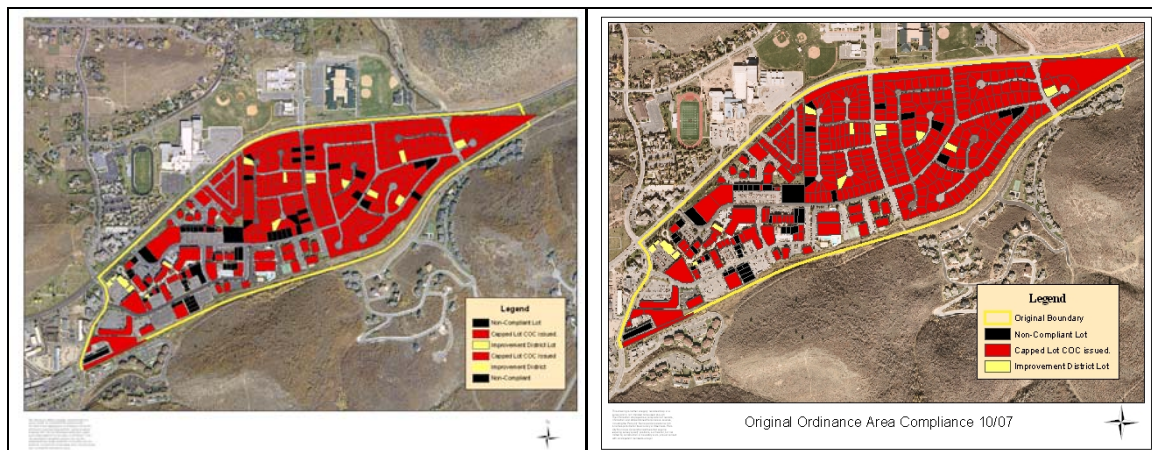


Figure 1: Prospector Map 10/08/06

Figure 2: Prospector Map 10/08/07

Subsection 3.3 Elimination of Potential Contamination Source

The City continues to be very proactive in requiring gas stations to treat surface water run-off that originates from fueling islands. This year the city required the installation of an oil/water separator for the Maverick Gas Station located at 1635 Bonanza Drive. The unit installed is called a Stormceptor (<http://www.stormceptor.com/engineers.aspx>) and is situated within the confines of the parking area. Stormceptor is a patented water quality structure that takes the place of a conventional manhole with in a storm drain system. Stormceptor removes free oil (TPH) and suspended solids (TSS) from storm water preventing spills and non-point source pollution from entering downstream lakes and rivers. Key benefits of a Stormceptor include:

- Capable of removing 50% to 80% of the total sediment load when properly applied as a source control for small areas
- Removes free oil from stormwater during low flow conditions
- Will not scour or re-suspend trapped pollutants
- Excellent spill control device for commercial and industrial developments
- Easy to maintain (vacuum truck)

- Engineered and continually tested
- Vertical orientation therefore resulting in a smaller footprint

The installation of the Stormceptor unit at the Maverick Station fulfills a very important measurable goal for the Building Department which is requiring all service stations to have oil/water separators installed to treat surface water run-off.



Picture 3: Maverick Stormceptor Installation.

As mentioned in the 2006 Annual Report PCMC and King Development Group, LLC have entered into the Voluntary Clean-up Program (VCP) with the Utah Department of Environmental Quality for the Alice Lode Mining site situated off of King Road. The Alice Lode Mining Claim comprises of 10.17 acres with 8.63 acres being owned by King Development Group and 1.54 acres owned by Park City Municipal Corporation (PCMC). The site was previously a silver mining claim that was operated from 1920 to 1935. PCMC successfully obtained Brownfield grant funding in 2003 resulting in a United States Environmental Protection Agency (USEPA) Targeted Brownfield Phase II Assessment being completed for this property.

The assessment revealed heavy metal contamination consistent with mine tailing impacts exceeding USEPA's Risk-Based Concentrations for residential and industrial property. The Risk-Based Concentrations are thresholds that USEPA has determined to be protective of human health and the environment for given pathways and naturally occurring background metal concentrations in the Park City area. It is PCMC and King Road Development Group intent to remediate the Alice Lode impacts to protect human health and the environment consistent with UDEQ oversight. Furthermore, this project directly coincides with the City's commitment to improve water quality within the Silver Creek Watershed by eliminating a contaminate source that impacts surface water quality within Woodside Gulch. The Utah Department of Environmental Quality has approved the Work Plan ([Addendum 8.0](#)) for this project; however the project is locked in discussion in the Planning Department relating to density and other development concerns. As a result, this work did not start this year because these issues remain unresolved, however once they are the remediation of the Alice Lode will commence.

Lastly, the Building Department submitted a substantial amount of comments for the Montage Development to address storm water run-off controls ([Addendum 9.0](#)). The recommendations have been accepted for pre and post storm water controls for this project.

The Montage Resort is being built within the Empire Canyon drainage which is a CERCLA site needing remediation for historic mine impacts and associated heavy metals.

Subsection 3.4 Illicit Discharge and Other Enforcement

During the year of 2007 three illicit discharges were addressed within the City limits; the discharges were related to two vandalism incidents of a porta-potty and the improper disposal of a hazardous waste within a water meter vault.

The porta-potty releases occurred on July 16th 2007 and TW was retained to mitigate the incident. The waste was contained and sent to a permitted TSD for proper treatment and disposal. Regarding, the improper disposal of a RCRA waste, 85 gallons of waste was removed from the water box and was characteristically hazardous for ignitibility and benzene (D001, D018). The city required the owner to do an environmental assessment of the site to determine the extent of the contamination and once this is completed a work plan will be developed in order to mitigate the site at 472 Deer Valley Loop Road (**Addendum 10**). Regarding the waste, it was transported as a RCRA waste and treated at an incinerator.

PCMC also sent out reminder notices (**Addendum 11**) to all gas stations that utilize an oil/water separator to treat storm water run-off originating from the facility. The intent of this notice is to remind the gas stations that in order for the separator to work, it must be maintained. All stations that received this notice replied to the city that their units were serviced and therefore functional. Periodic inspections of these units are conducted by the Environmental Coordinator to verify they are properly working.

SECTION 4.0 OPEN SPACE PROPERTY ACQUISITION

PCMC has been very proactive in acquiring open space and recognizes that open space designations have many benefits related to improving storm water quality. The open space program is funded from a variety of sources including a \$10 million open space bond. Currently the total open space portfolio that is owned by PCMC is over 4,000 acres of land. This acreage includes more than three miles of riparian/stream protection zones to buffer McLeod Creek and Silver Creek from storm water runoff impacts. PCMC has focused on acquiring open space properties that are considered sensitive lands, including steep slopes, wetlands, stream riparian areas, visual corridors, wildlife habitat, and agricultural lands. PCMC believes the open space properties provide storm water runoff protection by allowing increased water infiltration, and stream bank and wetland protection. **Addendum 12.0** is a map of all of the open-space owned by Park City Municipal Corporation. During the year of 2007 no additional open space parcels were purchased. However it is anticipated that additional acreage will be procured for the year of 2008 which is a city measurable goal.

SECTION 5.0 DEPARTMENT COMPLETED MEASURABLE GOALS

As specified in PCMC Storm Water Management Plan, annual goals are established for each department every year, with the intent of pursuing projects that have the potential of improving water quality. This section is intended to document the goals that were completed for 2005.

Subsection 5.1 Building Department

The Building Department completed the goals that were established for 2006. As stated in Subsection 3.1 the building inspectors have been diligent in enforcing the mitigation plan requirements and verifying contractors install storm water BMPs (**Stop Work Warning Notice**).

PCMC Building Department believes that further education will continue to be an important component in order to get all contractors up to date on the City's Building Code SWMP requirements. During the fall of this year the city enforced the Storm Water Management requirements for the Montage and PODZ discharge incident that occurred in Empire Canyon during the month of September. The combination of not having minimal storm water controls and inclement wet weather resulted in an excessive amount of sediment migrating outside the limits of disturbance. As a result Ron Ivie (Building Official) stopped work within the canyon and required the necessary storm water controls be installed. The Building Official also required that the controls be installed before any other work was conducted in the canyon.



Picture 4: Empire Canyon Pre-Enforcement.

In addition, the Building Official required Deer Valley Mountain Resort to repair the discharge/erosion issue depicted in Picture 5. To mitigate this issue the stream bed was stabilized by installing a three ply liner and stapled in place and followed up with seeding.



Picture 5: Deer Valley Resort Pre-Enforcement.

As previously stated, the plan checkers continue to require that all building plans identify storm water BMPs and the specific locations where they are installed. Contractors are still required to read and sign an "**Attachment A**" certification. The certification states that they will comply

with the signed mitigation plan and they understand PCMC environmental ordinances. Also, attached to all signed “Attachment A” certifications is a diagram of **approved storm water management controls**.

The Building Department was also active in public outreach, in distributing the **Environmental Information Handbook**, **Park Record Flyers**, and **Ordinance BMP Homeowner Brochure** and contractor training sessions. Lastly, any construction that results in ground water entering the excavation the Building Department requires that the contractor obtain a UDEQ “dewatering permit” and comply with the BMP’s within the permit. This has resulted in contractors becoming more conscience and creative about the management of shallow groundwater that accumulates on site. Because of this requirement contractors are constructing on-site sumps and water is being pumped to a de-watering well or French drain. It should be noted that if the structure is being built with a sump (i.e. within a parking garage), the plan checkers are requiring an in-line oil/water separator.

The Building Department continues to protect wetlands within the city limits. This year the IHC Summit County Medical Center (SCMC) was started and as result the city required the project obtain a Section 404 Individual Permit # 200450208 issued by the US Army Corps of Engineers to compensate for 0.3 acres wetland impacts. Mitigation and monitoring plan (**Addendum 13**) was developed to comply with requirements of the permit for the SCMC. The Pace Homer Ditch was chosen as the mitigation site and the reclamation resulted in the creation of a wet meadow as well as additional perennial and shoreline wetland habitat. Because of these efforts, 1.8 acres of seasonally saturated wetlands and 1,950 linear feet of channel were developed into a wetland/riparian zone.



Picture 6: IHC Compensatory Area.

Lastly, the Building Department teamed up with the East Canyon Creek Watershed Committee, and AGRC to develop an Environmental WebGIS Module. The module will be released on October 1st 2007 and will be a resource for relevant environmental information. The new application will be located on the AGRC server and will be predominantly displayed at **www.parkcity.org** website. The following is the location:

<http://mapserv.utah.gov/ParkCityGIS>

The GIS data layers that will be available to the public:

Soils Ordinance Compliance and Lead Concentrations

Soils Ordinance Boundary
City Zoning
Regulated Streams
Watershed Boundaries
Judge, Thiriot, Spiro Drinking Water Source Protection Zones
Wetlands - 50' Buffer Defined
Known Mine Tailings
Known Mine Hazards
10' Elevation Contours
Bike Trails
Conservation Reserve Program Area
Aerial Photo

Park City is very appreciative to have the participation of the East Canyon Creek Watershed Committee and AGRC in developing this valuable product.

Subsection 5.2 City Engineer Department

The City Engineer Department continues to pursue the goal of requiring storm water BMPs and sediment retention basins for all projects. This year three detention basins were installed at various developments within the city. The following are the locations of these units:



Picture 7: Lookout at Deer Valley Wet Detention Basin.

Picture 6 represents one of the detention basins and gabion reinforced channel that was required at the Lookout at Deer Valley project. For this project a total of 1 basin was constructed and the City Engineer required the channel to be reinforced to prevent any erosion.



Picture 8: Squatters Wet Detention Basin.

Picture 8 represents the Wet Detention Basin installed on the north side of the Squatters Restaurant parking area, which has developed into a wetland. Since the parking area was so close to McLeod Creek the City Engineer mandated the removal of a portion of parking lot in order to accommodate this basin.



Picture 9: Finnegan Bluff Subdivision Wet Detention Basin.

Other sediment detention basins constructed was within the Finnegan Bluff Subdivision where one wet detention basin was built.



Picture 10: Silver Star Steep Slope Stabilization.

It should also be noted that Park City requires the installation of erosion control stabilization matting on the steep slopes and Picture 10 represents the efforts being done at the Silver Star Development.

Lastly during the construction of street projects the City Engineer requires that the storm water accumulation structures be equipped with 8" silt traps as pictured in Picture #11. These units are maintained and pumped on annual basis by the Public Works Department – Streets Department. A total of 23 units were installed this year within developments and on street projects within Park City.



Picture 11: 8" Silt Trap.

Subsection 5.3 Parks and Golf Department

The Park and Golf Department continue to be very proactive in controlling non-point source pollution originating from PCMC facilities. This department is responsible for maintaining the Park Avenue staged sediment trap that was constructed in 2003. This year the sediment trap was excavated once, resulting in the removal of 16 tons of sediment (August 14th 2007). It should also be noted that PCMC has budgeted to fund a feasibility study to determine what location on East Canyon Creek would best facilitate the installation of a detention basin. The basin would act as a consolidation point for responding to illicit discharges that may enter the storm water system. This study will be completed next year with consideration for the construction being the following year of 2009.



Picture 12: Park Ave outfall after and before clean-out.

The course also oversees the two sediment vaults situated directly west of the course that receive the Silver Star Development run-off and those two units were cleaned out three times this year and the sediment reintroduced on site.



Picture 13: Silver Star Development wet vault.

Other efforts include, the golf course continuing to maintain several designated buffer areas throughout the course. The buffer areas reside along all streams and ponds that are within the golf course. Due to the flooding that occurred this spring, PCMC had to remove some vegetation because the flow was obstructed resulting in flooding.

Finally, the Parks Department has increased the number of dog waste dispensers, to a total of 16, which are situated throughout the City. These dispensers are used and serviced frequently and the staff continues to supply these stations with bags for the public's convenience. The cost the Parks Department incurs in purchasing these units is \$50/unit.

Subsection 5.4 Water Department

PCMC Water Department for the year 2007 was instrumental in educating the public on the importance of water conservation practices. This commitment is well defined in the City's Water Conservation Plan, which was written and promulgated into a City ordinance in 2003. During the year the department actively enforced the water conservation ordinance by issuing citations. The department issued a Stage I Drought Notice in June and most of the infractions were related to citizens not complying with the landscape watering restrictions. The fines start at \$50 and increases incrementally to a maximum of \$500 per day. Nonetheless, PCMC had continued participation by citizens that volunteered to enter the "Third Day" landscape-watering program. In addition, the department also sent out Water Conservation Brochures, participated in the Water Festival, and paid for Public Service Announcements during the summer on KPCW Radio. Other outreach efforts include water educational information being inserted into utility bills to further educate the public.

SECTION 6.0 CONSERVATION RESERVE PROGRAM (CRP)

This year the Weber Basin Job Corps planted 200 Yellow Willows and 200 Red Osier Dogwoods within the McLeod Creek stream corridor in accordance with NRCS work plan for the area. Approximately 200 lbs. of refuse was removed from the stream and disposed of by the Parks Department. For the past four years the city has been working to enhance the 23 acres of Conservation Reserve Program (CRP) stream corridor, which is designated as permanent riparian

buffer. To date, the Weber Basin Job Corps volunteers have planted more than 4,800 trees within the buffer area and 700 lbs. of native seed mix has been hand broadcast and established within the buffer zone. Because of these efforts the McLeod Creek stream corridor has improved substantially with establishment of native grasses and trees. Pictures 14 and 15 depict the improvements made to McLeod Creek spanning from 2002 to 2007.



Picture 14: Headwaters of McLeod 2002.



Picture 15: Headwaters of McLeod 2007.

PCMC is very appreciative of the Weber Basin Job Corps volunteers and look forward to their continued participation in the program. It should also be noted that the Job Corp crew also installed six Christmas tree revetments in areas that were prone to erosion during the spring run-off. These areas will be followed-up in 2008 and new Christmas trees will be anchored to the posts in order to maintain the functionality of the revetments.



Picture 16: CRP Planting Crew May 07.

The City Council unanimously approved entry into the Conservation Reserve Program and 23 acres were enrolled on June 1st, 2003.

SECTION 7.0 MONITORING AND SAMPLING

Currently, Park City performs visual water quality monitoring during precipitation events at various locations within the city limits. Furthermore the City continued in 2007 to sample the Prospector Drain outfall ([Addendum 14](#)) located at Prospector Park and a pilot anaerobic treatment wetland ([Addendum 15](#)). However, the pilot is no longer being fed since the vault excavation removed the manhole that fed the pilot.

Subsection 7.1 Prospector Drain

This year PCMC with oversight from Dr. Fitch with the University of Missouri Rolla Civil Environmental Engineering Department and David Reisman who is the Director of USEPA's ORD Engineering Technical Support Center and National Risk Management Research Laboratory finalized the design of the anaerobic wetland cell (**Addendum 16**). As stated in previous reports this system is intended to treat the Prospector Drain outfall, thereby reducing the zinc and cadmium load to the Silver Creek Watershed.

For this year, PCMC will concentrate on installing the **vault** upstream from the full-scale wetland. The purpose of the vault is to act as a bypass, in the event the flow exceeds the treatment capacity. PCMC also proposes to have flow meters installed in this unit in order to monitor the flow entering the biocell as well as the flow bypassing the treatment unit. The City anticipates that the unit will be installed by November 1st 2007.

Addendum 14 contains the results for the pilot cell to June 5th 2007 and **Addendum 15** contains a summary of the sampling results for the Prospector Drain. Furthermore, Dr. Fitch has written a complete analytical summary of the results from the pilot and it is represented as **Addendum 17**. Funding for this project was approved by the City Council and a budget of \$150,000.00 was allocated for the construction of an anaerobic treatment system for treating the Prospector drain. The project went out for bid but all bids were rejected due to several issues including; no bid was within the budgeted level for the project. Realistically the cost for this project is much more (\$500,000.00), therefore next fiscal year the budget will be reevaluated and additional funds requested to prioritize this project as part of the 2008 CIP budget process.

Subsection 7.2 Golf Course Water Sampling

During the year of 2007, Park City Golf Course (PCGC) procured 6 water quality samples this year at seven locations on the course where perennial streams enter and exit the golf course. The samples are analyzed for the following analytical constituents:

- Nutrients
- Total suspended solids (TSS)
- Visual observation

The samples were taken to BYU laboratory and the results have not been received to date, however they will be summarized in a report at the end of the year. In previous years there have been no problems detected and it is anticipated the same will be experienced this year. This monitoring assists PCGC to detect fertilizer leaching and assess management practices. The sampling frequency for this monitoring is done once every other month during the winter and once per-month during the golf season.

SECTION 8.0 HOUSE HOLD HAZARDOUS WASTE COLLECTION

The City recognizes that as the population grows the need to develop a household hazardous waste program becomes more evident. Therefore, the City continues to promote Recycle Utah's efforts in regards to the Household Hazardous Waste Collection events. This year two were held at the Recycle Utah facility on May 5th 2007 and October 6th 2007.